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JUN 17 1994

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Before The
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554


In the Matter of)
Allocation of Spectrum Below) ET Docket No. 94-32
5 GHz Transferred from)
Federal Government Use)

To: The Commission

Comments Of

The City and County of Durham North Carolina hereinafter City/County of Durham North Carolina, submits the following comments in response to the above captioned Notice of Inquiry.

Respectfully Submitted by:



Tommy Pope
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SUMMARY

As a long time user of wireless technology, Durham, NC appreciates the efforts of Congress, the Federal Communications Commission and the National Telecommunications Information Administration to plan for the future spectrum requirements of public and private users. It is with an eye to our own future communications needs that we express an interest in this proceeding.

It is Durham's hope that the Commission will make a concentrated effort to understand the needs of non-federal users and to select spectrum from bands which will accommodate these needs as well as meet our varying technical requirements. Durham also wishes to express our support of the Petition for Rulemaking filed by the Coalition of Private Users of Emerging Multimedia Technology. As a user of both public and private systems, we recognize the clear and compelling need for a separate allocation of spectrum for strictly private use.

INTRODUCTION

The City and County of Durham, NC use two-way radios as a working tool in all major departments to serve the citizens. The police and the sheriff depend on a radio network to provide law enforcement protection for the public. Fire, rescue and ambulance services also use these radio systems in their life-saving and property-saving mission.

We are in the construction stage of a new county-wide, trunked 800 MHz radio system which is vitally needed to provide communications for approximately three thousand radio units for this combined public safety and public service organization. These departments provide services for over one hundred sixty thousand residents and will provide back-up service for the City of Cary, NC and for the Raleigh-Durham International Airport as well.

BACKGROUND

In December of 1993, the Coalition of Private Users of Emerging Multimedia Technology (hereinafter COPE petition) filed a petition for rule-making with the Commission calling for the amendment of the current rules to allocate 75 MHz of spectrum to accommodate an Advanced Private Land Mobile Communications Service.

The COPE petition speaks to the rapid growth of the private land mobile industry and reveals some staggering statistics: "Private land mobile transmitters in the United States have increased from approximately one million units in 1958 to over 17,000,000 today." Forty percent of this growth is in the bands below 470 MHz. Industry analysts estimate that by the year 2000, there will be more than 27,000,000 transmitters in use.

The COPE petition further states that the refarming proceeding before the Commission may accommodate some of this growth by narrowing channel bandwidth, but this solution will only offer moderate relief. The narrowing of the channels will accommodate only traditional voice and data and will not meet the demand for future bandwidth-intensive technologies.

The intent of the Notice of Proposed Rule-Making 92-9 filed by the Commission in February of 1992 was to provide spectrum for emerging technologies for both private and public systems. However, 160 MHz of this spectrum has been allocated for public/carrier use leaving little available for private systems.

Private systems play a key role in public safety. The unique requirements of current systems and future technologies cannot generally be met with public/shared systems.

**ATTEMPTS BY CITY/COUNTY OF DURHAM, NC TO IMPROVE AND UPDATED CURRENT
WIRELESS COMMUNICATION HAVE BEEN DIFFICULT GIVEN THE
EXISTING REGULATORY ENVIRONMENT**

Our four (4) UHF repeated Public Safety channels are congested. Frequently, officers and firemen have to wait to be heard. This is often life-threatening. The Public Service users have no repeated channels and are extremely crowded. Presently, there are no available frequencies below 800 MHz in urban North Carolina. The 800 MHz public safety (PL, PP, PF) frequencies are all in use. We have had to resort to using frequencies in the General Pool (commercial) in order to operate. We have just contracted with Motorola to build a \$7.3 million, 30 channel trunked 800 MHz system. We feel that this will provide us with enough communications capacity for the next ten (10) years.

At this time, we had to request a waiver from the FCC to use General Pool frequencies because there are no longer any available public safety channels available that would not cause harmful interference to other licensees in central North Carolina, southern Virginia and parts of South Carolina.

Presently, some two hundred forty one commercial license applications to use public safety channels have been processed since February 2, 1994. Yet, when we ask for use of General Pool frequencies to provide public safety services for citizens, we are often turned away because commercial users are reserving these channels for themselves.

**AN ADVANCED PRIVATE LAND MOBILE COMMUNICATIONS SERVICE
WILL PROVIDE THE FLEXIBILITY TO
HELP THE CITY OF DURHAM TO ATTAIN ITS LONG-TERM GOALS**

The need for private systems is critical now, but will be even more so in the future. As Durham prepares to meet the demands of the next century, we realize the importance of maintaining our competitive edge and improving our place in the international market. In order to do that, we need to increase productivity, lower costs, maintain quality and customer service while guaranteeing the safety of both our employees and environment. Recent and future advances in wireless communications technologies will aid us in attaining our goals.

**PUBLIC CARRIER-PROVIDED SYSTEMS CANNOT PROVIDE ACCESS
TO THE NEW TELECOMMUNICATIONS TECHNOLOGIES
NEEDED BY PRIVATE USERS**

Public systems focus on the voice and data needs of the general public. These generic needs will not meet the very specific needs of the private user. It would not be cost effective to the common carrier to offer specialized services which would apply to only a small portion of its user base. It would not be cost effective to the common carrier to offer specialized services which would apply to only a small portion of its user base.

In addition, many private users are located in areas not currently served by any type of common carrier. Nor are these areas likely to be served in the near future. Even so, due to the application mills promising huge return on a \$7,000 investment, channels are not available in many areas which are truly rural. As a result, private users don't have spectrum available even in what one would at first glance consider an extremely rural, and thereby frequency glutted area. For example, SMR Wait Lists are springing up in Iowa, Alabama and Wisconsin.

When a city is listed on the SMR Wait List, it means that SMR category channels are no longer available. Relying on past experience, one can theorize that when existing SMR systems can't expand through acquiring additional SMR's channels, they will begin to apply for and in short exhaust the supply of intercategory channels rendering those channels unavailable for the private user.

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